



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/853,007	05/08/97	CHI-YA CHENG	J 7936

RONALD A BLEEKER  
MOBIL OIL CORPORATION  
OFFICE OF LEGAL COUNSEL  
3225 GALLOWES ROAD  
FAIRFAX VA 22307

IM61/1203

EXAMINER
YILDIRIM, B

ART UNIT	PAPER NUMBER
1764	8

DATE MAILED: 12/03/98

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
08/853,007

Applicant(s)  
Cheng et al.

Examiner  
Bekir L. Yildirim

Group Art Unit  
1764



☒ Responsive to communication(s) filed on Oct 28, 1998

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-10 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-10 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 1764

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kushnerick et al. (USP 4,992,606).

The reference teaches the same process with the same MCM-22 catalyst having the same diffraction pattern, under the same conditions, thus anticipates the claimed invention. The reference discloses that "it may be desirable" or "it is desirable" to include binder, to improve the crush strength, thus the absence of the binder, while not preferred, is also within the reference teachings.

***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kushnerick et al. (USP 4,992,606).

Art Unit: 1764

The reference teaches the same process with the same MCM-22 catalyst having the same diffraction pattern, under the same conditions (see claims). The reference catalyst may optionally contain a binder to increase the crush-strength thereof (col. 9, lines 30-37; col. 10, lines 41-42).

A distinction may be made between the two catalyst compositions in that the reference catalyst may comprise a binder, while the instant claims recite a binder-free catalyst. The invention as a whole however would have been obvious to one having ordinary skill in the art since the artisan equipped with the reference teachings would select either one of two alternatives, i.e. with and without binder in the reference. Furthermore the omission of means (the binder) together with its function (enhancement of crush strength) would not involve an invention. See *Ex parte CRIGER*, 125 USPQ 448 (BdPatApp&Int 1960) or *In re Pedley*, 41 CCPA 868, 101 USPQ 286, 1954 C.D. 163, 686 O.G. 5. 212 F.2d 199.

### ***Response to Arguments***

5. Applicant's arguments filed on October 28, 1998 have been fully considered but they are not persuasive.

The applicant argues that better and unexpected results are obtained by the exclusion of binder, and particularly cites the higher alpha values of the binder-free catalyst relative to the one with binder, resulting in higher conversion rates and cites examples to support the assertion.

The argument is not persuasive because it is believed that, everything else being the same, one with ordinary skill would expect higher alpha activity from a binder-free catalyst than one that

Art Unit: 1764

comprising a binder, since the binder itself would have much lower alpha activity than the active catalytic component (see Kushnerick, lines 15-40). According to Kushnerick, inactive materials also function as diluents thus controlling the rate of reaction (i.e. slowing it down).

The reference further specifically discloses the primary purpose of the presence of the binder, which is the improvement of the crush strength in harsh alkylation environment. The artisan willing to make the trade-off between higher activity and better crush strength and controlled reaction would omit the binder. This is believed to be the classic case of omitting means together with its function addressed in the case laws recited above.

Note also that, one with ordinary skill is one who is motivated by economics to depart from the prior art to reduce costs consistent with desired product properties (In re Clinton, 188 USPQ 365 (367), CCPA 1976 and In re Thompson, 192 USPQ 275 (277), CCPA 1976).

In summary, the reference teachings as a whole combined with the conventional knowledge, offers choices to the artisan with expected consequences. Increased reaction rate at the expense of controlled reaction and better crush strength is among them, thus the results the applicant cites would not constitute "unexpected results".

The rejections therefore are maintained.

### ***Conclusion***

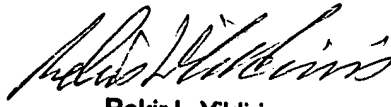
6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1764

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bekir L. Yildirim whose telephone number is (703) 308-3586.

B.L.Y.  
November 5, 1998

  
Bekir L. Yildirim  
Primary Examiner